

ELECTRONIC CATALOG SYSTEM AND METHOD

This application is a continuation of application Ser. No. 08/747,275, filed Nov. 12, 1996, now U.S. Pat. No. 5,754,864, which is a divisional of application Ser. No. 08/460,913, filed Jun. 5, 1995, now U.S. Pat. No. 5,761,649, which is a continuation of U.S. application Ser. No. 07/866,867, filed Apr. 10, 1992, now U.S. Pat. No. 5,528,490.

BACKGROUND AND SUMMARY OF THE INVENTION

The present invention relates to an electronic catalog system. More particularly, the present invention relates to an improved electronic catalog system capable of providing a customer at a remote location with accurate updated product information from a vendor each time the customer uses the electronic catalog system.

There are two common types of system architecture that are commonly used in conventional electronic catalog systems. One common system is a dial-up system. The dial-up system includes a remote computer at a customer location with modem capabilities and a main computer at the vendor's location. The customer uses his computer to log on to the vendor's computer as a user. The customer can then browse through a catalog menu on the vendor's computer. The primary disadvantage of a dial-up system is that graphics data cannot be transmitted from the vendor's computer to the customer's computer in a meaningful time frame. It takes a large amount of time to transmit graphics data over telephone lines via a modem, especially if high resolution is desired. Therefore, the dial-up system is not practical for catalogs which include both graphics data and textual data.

A second common electronic catalog system is a system which is located totally on the customer's computer. The data in the customer's computer is periodically updated by the vendor by sending updated data disks. The primary disadvantage of this catalog system is that the data is rarely totally accurate. The accuracy of the data depends on the vendor sending updated data disks to the customer. In addition, the customer must also take the time to install the latest updated data disk onto his computer.

The electronic catalog system of the present invention is designed to reduce the problems associated with the above-mentioned catalog systems. The electronic catalog system of the present invention includes software on the customer's computer and software on the vendor's computer. Therefore, the present electronic catalog system provides a total system architecture. The software handles all communications between the customer's computer and vendor's computer. The customer's computer cooperates with vendor's computer to provide the customer with accurate updated catalog information each time the catalog system is used.

Catalog data is stored on both the vendor's computer and the customer's computer. The vendor's computer contains variable data related to each of the catalog products. Variable data is data that can change at any time. Changes in the variable data can affect the design integrity of the customer's product in which the data is being used. The customer's computer contains all constant data related to the catalog products. Constant data includes both graphics data and textual data. For instance, the customer's computer may include high resolution graphics data illustrating the various catalog items in detail. The customer's computer also includes constant textual data such as a dimensional data layout. Dimensions of the products and cost information are

typically considered variable data stored on vendor's computer. If variable data changes, the vendor corrects the variable data entered into vendor's computer. The present invention automatically provides the customer with updated variable data from the vendor's computer without the need to load new data disks onto the customer's computer.

One object of the present invention is to provide the customer with an instantaneous distribution of the latest catalog data available. In operation, the customer browses through general catalog data residing on the customer's computer and determines the exact catalog data required. For example, the customer can select a specific product from a list of products on the customer's computer. Once the desired catalog data has been selected, the electronic catalog system automatically calls the vendor's computer and logs on. The catalog system first checks to determine whether any of the constant data on the customer's computer requires updating. If a constant data update is required, this update is completed prior to filling the customer's request for information. Once the constant data is updated, if necessary, vendor's computer transmits variable data related to the specific product selected by the customer. In addition, vendor's computer transmits a map to the customer's computer which permits the customer's computer to integrate the variable data received from the vendor's computer with constant data related to the selected product stored in the customer's computer. Therefore, a combination of constant data residing on the customer's computer and variable data downloaded from vendor's computer is integrated or merged to create a completely updated data sheet for the selected product. The variable data downloaded from vendor's computer includes the most recent data entered by the vendor. Therefore, the variable data is accurate, and the electronic catalog system of the present invention generates catalog information based only upon the latest vendor data. Advantageously, customers will have instant access to changes in variable data related to the products in the electronic catalog system.

Another object of the present invention is to minimize computer on-line time. A common disadvantage of conventional dial-up catalog systems is that a customer can log on to a vendor's computer and never log off. In other words, the customer has control over when to log on and when to log off vendor's computer. This can tie up vendor's computer for long periods of time. To overcome this disadvantage, conventional catalog systems often depend on a time out to automatically log the customer off the vendor's computer.

In the electronic catalog system of the present invention, the customer does not have the privilege of determining when to log on or when to log off the vendor's computer. The catalog system of the present invention automatically determines when it is necessary to log on to vendor's computer to retrieve additional data. Because all of the general catalog data is resident on the customer's computer, the normal browsing the user might do is accomplished locally at the customer's computer. The customer's computer automatically connects itself to vendor's computer and automatically requests the needed information only after the desired product has been selected from data on the customer's computer. The customer's computer automatically logs off vendor's computer after the requested data is received. Therefore, the electronic catalog system of the present invention typically reduces the on-line time by about 70-80%.

Yet another object of the present invention is to increase system security. System security is a serious problem that confronts any company that allows others to have access to data residing on its computer system. In conventional cata-